

Abstract of the Disclosure

A method forms a mosaic image on a display surface with a multiple projectors. For each projector in turn, a registration image is projected onto the display surface so that a union of the projected registration images forms a polygon. With a camera, for each registration image in turn, a corresponding input image is acquired. A display area on the display surface enclosed by the polygon is then identified, and a single projective matrix between the display area and each input image is determined for each projector. A source image for each projector is warped according to the corresponding homography of the projector. The pixels of the warped source image are weighted according to the single projective matrix, and then the warped and weighted source images are concurrently projected directly onto the display surface to form the mosaic image.